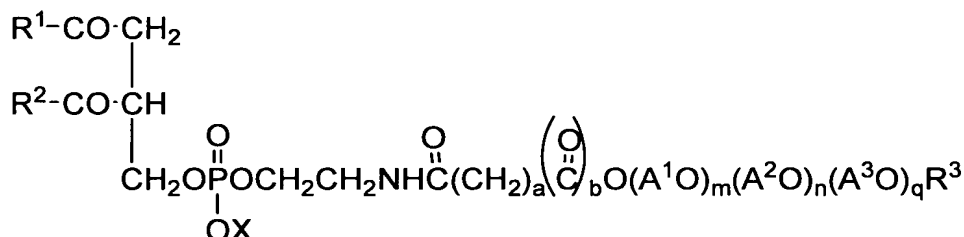


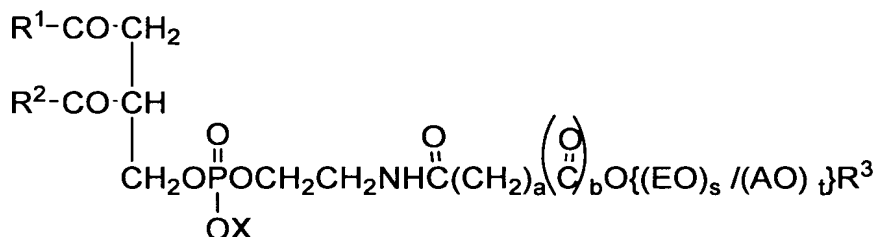
What is claimed is:

1. A phospholipid derivative represented by the following formula (I):



wherein R<sup>1</sup>CO and R<sup>2</sup>CO independently represent an acyl group having 8 to 22 carbon atoms; R<sup>3</sup> represents hydrogen atom, or a hydrocarbon group having 1 to 4 carbon atoms; symbol "a" represents an integer of 0 to 4; symbol "b" represents 0 or 1, provided that when a is 0, b is 0; X represents hydrogen atom, an alkali metal atom, an ammonium, or an organic ammonium; A<sup>1</sup>O and A<sup>3</sup>O independently represent an oxyalkylene group containing oxyethylene group and having 2 to 4 carbon atoms, wherein the ratio of the oxyethylene group to the oxyalkylene group having 2 to 4 carbon atoms in A<sup>1</sup>O and A<sup>3</sup>O is 0.5 or larger in terms of a weight ratio; A<sup>2</sup>O represents an oxyalkylene group having 3 or 4 carbon atoms; symbols "m" and "q" independently represent an average molar number of added oxyalkylene groups having 2 to 4 carbon atoms; and symbol "n" represent an average molar number of added oxyalkylene groups having 3 or 4 carbon atoms; provided that m, n and q satisfy the following conditions: 5 ≤ m ≤ 600, 1 ≤ n ≤ 45, 0 ≤ q ≤ 200, 10 ≤ m+n+q ≤ 600, 0.04 ≤ n/(m+n+q), and q/(m+n+q) ≤ 0.8.

2. A phospholipid derivative represented by the following formula (II):



wherein  $R^1CO$  and  $R^2CO$  independently represent an acyl group having 8 to 22 carbon atoms;  $R^3$  represents hydrogen atom, or a hydrocarbon group having 1 to 4 carbon atoms; symbol "a" represents an integer of 0 to 4; symbol "b" represents 0 or 1, provided that when a is 0, b is 0; X represents hydrogen atom, an alkali metal atom, an ammonium, or an organic ammonium; EO represents oxyethylene group; AO represents an oxyalkylene group having 3 or 4 carbon atoms;  $\{(EO)_s/(AO)_t\}$  represents a group consisting of randomly bonded oxyethylene groups and oxyalkylene groups having 3 or 4 carbon atoms, wherein the ratio of the oxyethylene groups to the oxyalkylene groups having 2 to 4 carbon atoms in  $\{(EO)_s/(AO)_t\}$  is 0.5 to 0.95 in terms of a weight ratio; symbol "s" represents an average molar number of added oxyethylene groups; and symbol "t" represent an average molar number of added oxyalkylene groups having 3 or 4 carbon atoms; provided that s and t satisfy the following conditions:  $5 \leq s \leq 500$ ,  $0 < t \leq 100$ , and  $6 \leq (s+t) \leq 500$ .

3. The phospholipid derivative according to claim 1, wherein  $A^1O$  and  $A^3O$  are oxyethylene groups.

4. The phospholipid derivative according to claim 1, wherein  $A^1O$  and  $A^3O$  are oxyethylene groups, and  $A^2O$  is oxypropylene group.

5. The phospholipid derivative according to claim 1, wherein  $A^1O$  is oxyethylene group,  $A^2O$  is oxypropylene group, and q is 0.

6. The phospholipid derivative according to claim 2, wherein AO is oxypropylene group, and the ratio of oxyethylene groups to oxyethylene groups and oxypropylene groups is 0.60 to 0.95.

7. A lipid membrane structure comprising the phospholipid derivative according to any one of claims 1 to 6.

8. A pharmaceutical composition containing the lipid membrane structure according to claim 7 and a medicament.

9. The pharmaceutical composition according to claim 8, wherein the medicament is an antitumor agent.

10. A surfactant comprising the phospholipid derivative according to any one of claims 1 to 6.